



1600

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/609,915

DATE: 05/13/2002

TIME: 13:15:04

Input Set : A:\ON0085I.ST25.txt

Output Set: N:\CRF3\05102002\I609915.raw

3 <110> APPLICANT: Linsley, Peter S
 4 Ledbetter, Jeffrey A
 5 Bajorath, Jorgen
 6 Peach, Robert J
 7 Brady, William
 8 Wallace, Philip
 9 Damle, Nitin K
 11 <120> TITLE OF INVENTION: SOLUBLE CTLA4 MUTANT MOLECULES AND USES THEREOF
 13 <130> FILE REFERENCE: 30436.30USI2
 15 <140> CURRENT APPLICATION NUMBER: 09/609,915
 16 <141> CURRENT FILING DATE: 2000-07-03
 18 <150> PRIOR APPLICATION NUMBER: 07/723,617
 19 <151> PRIOR FILING DATE: 1991-06-27
 21 <150> PRIOR APPLICATION NUMBER: 08/008,898
 22 <151> PRIOR FILING DATE: 1993-01-22
 24 <150> PRIOR APPLICATION NUMBER: 08/228,208
 25 <151> PRIOR FILING DATE: 1994-04-15
 27 <150> PRIOR APPLICATION NUMBER: 08/539,436
 28 <151> PRIOR FILING DATE: 1995-10-05
 30 <150> PRIOR APPLICATION NUMBER: 09/014,761
 31 <151> PRIOR FILING DATE: 1998-01-28
 33 <150> PRIOR APPLICATION NUMBER: 09/603,825
 34 <151> PRIOR FILING DATE: 2000-06-26
 36 <150> PRIOR APPLICATION NUMBER: 60/036,594
 37 <151> PRIOR FILING DATE: 1997-01-31
 39 <160> NUMBER OF SEQ ID NOS: 50
 41 <170> SOFTWARE: PatentIn version 3.1
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 44 <211> LENGTH: 636
 45 <212> TYPE: DNA
 46 <213> ORGANISM: Homo sapiens
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 53 ggcacgcgca gctttgtgtg tgagtatgca tctccaggca aagccactga ggtccgggtg 180
 55 acagtgtctc ggcaggctga cagccagggtg actgaagtct gtgcggcaac ctacatgatg 240
 57 gggaatgagt tgaccttctc agatgattcc atctgcacgg gcacctccag tggaaatcaa 300
 59 gtgaacctca ctatccaagg actgagggcc atggacacgg gactctacat ctgcaagggtg 360
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 63 attgatccag aacogtgccc agattctgac ttcctcctct ggatccttgc agcagttagt 480
 65 tcgggggttg ttttttatag ctttctcctc acagctgttt ctttgagcaa aatgctaaaag 540
 67 aaaagaagcc ctcttacaac aggggtctat gtgaaaatgc cccaacaga gccagaatgt 600
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Input Set : A:\ON0085I.ST25.txt

Output Set: N:\CRF3\05102002\I609915.raw

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83 Leu Leu Phe Pro Ser Met Ala Ser Met Ala Met His Val Ala Gln Pro
84 20 25 30
87 Ala Val Val Leu Ala Ser Ser Arg Gly Ile Ala Ser Phe Val Cys Glu
88 35 40 45
91 Tyr Ala Ser Pro Gly Lys Ala Thr Glu Val Arg Val Thr Val Leu Arg
92 50 55 60
95 Gln Ala Asp Ser Gln Val Thr Glu Val Cys Ala Ala Thr Tyr Met Met
96 65 70 75 80
99 Gly Asn Glu Leu Thr Phe Leu Asp Asp Ser Ile Cys Thr Gly Thr Ser
100 85 90 95
103 Ser Gly Asn Gln Val Asn Leu Thr Ile Gln Gly Leu Arg Ala Met Asp
104 100 105 110
107 Thr Gly Leu Tyr Ile Cys Lys Val Glu Leu Met Tyr Pro Pro Tyr
108 115 120 125
111 Tyr Leu Gly Ile Gly Asn Gly Thr Gln Ile Tyr Val Ile Asp Pro Glu
112 130 135 140
115 Pro Cys Pro Asp Ser Asp Phe Leu Leu Trp Ile Leu Ala Ala Val Ser
116 145 150 155 160
119 Ser Gly Leu Phe Phe Tyr Ser Phe Leu Leu Thr Ala Val Ser Leu Ser
120 165 170 175
123 Lys Met Leu Lys Lys Arg Ser Pro Leu Thr Thr Gly Val Tyr Val Lys
124 180 185 190
127 Met Pro Pro Thr Glu Pro Glu Cys Glu Lys Gln Phe Gln Pro Tyr Phe
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131 Ile Pro Ile Asn
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147 20 25 30
150 Val Phe Cys Lys Ala Met His Val Ala Gln Pro Ala Val Val Leu Ala
151 35 40 45
154 Ser Ser Arg Gly Ile Ala Ser Phe Val Cys Glu Tyr Ala Ser Pro Gly
155 50 55 60
158 Lys Ala Thr Glu Val Arg Val Thr Val Leu Arg Gln Ala Asp Ser Gln
159 65 70 75 80
162 Val Thr Glu Val Cys Ala Ala Thr Tyr Met Met Gly Asn Glu Leu Thr

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Input Set : A:\ON0085I.ST25.txt

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170 Asn Leu Thr Ile Gln Gly Leu Arg Ala Met Asp Thr Gly Leu Tyr Ile
171          115          120          125
174 Cys Lys Val Glu Leu Met Tyr Pro Pro Pro Tyr Tyr Leu Gly Ile Gly
175          130          135          140
178 Asn Gly Thr Gln Ile Tyr Val Ile Asp Pro Glu Pro Cys Pro Asp Ser
179 145          150          155          160
182 Asp Phe Leu Leu Trp Ile Leu Ala Ala Val Ser Ser Gly Leu Phe Phe
183          165          170          175
186 Tyr Ser Phe Leu Leu Thr Ala Val Ser Leu Ser Lys Met Leu Lys Lys
187          180          185          190
190 Arg Ser Pro Leu Thr Thr Gly Val Tyr Val Lys Met Pro Pro Thr Glu
191          195          200          205
194 Pro Glu Cys Glu Lys Gln Phe Gln Pro Tyr Phe Ile Pro Ile Asn
195          210          215          220
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199 <211> LENGTH: 223
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201 <213> ORGANISM: Mus musculus
203 <400> SEQUENCE: 4
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210          20          25          30
213 Val Phe Ser Glu Ala Ile Gln Val Thr Gln Pro Ser Val Tyr Leu Ala
214          35          40          45
217 Ser Ser His Gly Tyr Ala Ser Phe Pro Cys Glu Tyr Ser Pro Ser His
218          50          55          60
221 Asn Thr Asp Glu Val Arg Val Thr Val Leu Arg Gln Thr Asn Asp Gln
222 65          70          75          80
225 Met Thr Glu Val Cys Ala Thr Thr Phe Thr Glu Lys Asn Thr Val Gly
226          85          90          95
229 Phe Leu Asp Tyr Pro Phe Cys Ser Gly Thr Phe Asn Glu Ser Arg Val
230          100          105          110
233 Asn Leu Thr Ile Gln Gly Leu Arg Ala Val Asp Thr Gly Leu Tyr Leu
234          115          120          125
237 Cys Lys Val Glu Leu Met Tyr Pro Pro Pro Tyr Phe Val Gly Met Gly
238          130          135          140
241 Asn Gly Thr Gln Ile Tyr Tyr Ile Asp Pro Glu Pro Cys Pro Asp Ser
242 145          150          155          160
245 Asp Phe Leu Leu Trp Ile Leu Tyr Ala Val Ser Leu Gly Leu Phe Phe
246          165          170          175
249 Tyr Ser Phe Leu Val Ser Ala Val Ser Leu Ser Lys Met Leu Lys Lys
250          180          185          190
253 Arg Ser Pro Leu Thr Thr Gly Val Tyr Val Lys Met Pro Pro Thr Glu
254          195          200          205
257 Pro Glu Cys Glu Lys Gln Phe Gln Pro Tyr Phe Ile Pro Ile Asn

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Input Set : A:\ON0085I.ST25.txt

Output Set: N:\CRF3\05102002\I609915.raw

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266 <400> SEQUENCE: 5
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273      20      25      30
276 Asp Ser Asn Glu Val Ser Leu Ser Cys Arg Tyr Ser Tyr Asn Leu Leu
277      35      40      45
280 Ala Lys Glu Phe Arg Ala Ser Leu Tyr Lys Gly Val Asn Ser Asp Val
281      50      55      60
284 Glu Val Cys Val Gly Asn Gly Asn Phe Thr Tyr Gln Pro Gln Phe Arg
285 65      70      75      80
288 Ser Asn Ala Glu Phe Asn Cys Asp Gly Asp Phe Asp Asn Glu Thr Val
289      85      90      95
292 Thr Phe Arg Leu Trp Asn Leu His Val Asn His Thr Asp Ile Tyr Phe
293      100     105     110
296 Cys Lys Ile Glu Phe Met Tyr Pro Pro Tyr Leu Asp Asn Glu Arg
297      115     120     125
300 Ser Asn Gly Thr Ile Ile His Ile Lys Glu Lys His Leu Cys His Thr
301      130     135     140
304 Gln Ser Ser Pro Lys Leu Phe Trp Ala Leu Tyr Val Val Ala Gly Val
305 145     150     155     160
308 Leu Phe Cys Tyr Gly Leu Leu Val Thr Val Ala Leu Cys Val Ile Trp
309      165     170     175
312 Thr Asn Ser Arg Arg Asn Arg Leu Leu Gln Val Thr Tyr Met Asn Met
313      180     185     190
316 Thr Pro Arg Arg Pro Gly Leu Thr Arg Lys Pro Tyr Gln Pro Tyr Ala
317      195     200     205
320 Pro Ala Arg Asp Phe Ala Ala Tyr Arg Pro
321      210     215
324 <210> SEQ ID NO: 6
325 <211> LENGTH: 218
326 <212> TYPE: PRT
327 <213> ORGANISM: Rattus norvegicus
329 <400> SEQUENCE: 6
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332 1      5      10      15
335 Val Thr Glu Asn Lys Ile Leu Val Lys Gln Ser Pro Leu Leu Val Tyr
336      20      25      30
339 Asp Asn Asn Glu Val Ser Leu Ser Cys Arg Tyr Ser Tyr Asn Leu Leu
340      35      40      45
343 Ala Lys Glu Phe Arg Ala Ser Leu Tyr Lys Gly Val Asn Ser Asp Val
344      50      55      60
347 Glu Val Cys Val Gly Asn Gly Asn Phe Thr Tyr Gln Pro Gln Phe Arg
348 65      70      75      80

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Input Set : A:\ON0085I.ST25.txt

Output Set: N:\CRF3\05102002\I609915.raw

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351 Pro Asn Val Gly Phe Asn Cys Asp Gly Asn Phe Asp Asn Glu Thr Val
352      85      90      95
355 Thr Phe Arg Leu Trp Asn Leu Asp Val Asn His Thr Asp Ile Tyr Phe
356      100     105     110
359 Cys Lys Ile Glu Val Met Tyr Pro Pro Tyr Leu Asp Asn Glu Lys
360      115     120     125
363 Ser Asn Gly Thr Ile Ile His Ile Lys Glu Lys His Leu Cys His Ala
364      130     135     140
367 Gln Thr Ser Pro Lys Leu Phe Trp Pro Leu Val Val Val Ala Gly Val
368 145      150     155     160
371 Leu Leu Cys Tyr Gly Leu Leu Tyr Thr Val Thr Leu Cys Ile Ile Trp
372      165     170     175
375 Thr Asn Ser Arg Arg Asn Arg Leu Leu Gln Ser Asp Tyr Met Asn Met
376      180     185     190
379 Thr Pro Arg Arg Leu Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
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383 Pro Ala Arg Asp Phe Ala Ala Tyr Arg Pro
384      210     215
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388 <211> LENGTH: 220
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399      20      25      30
402 Asp Asn Ala Tyr Asn Leu Ser Cys Lys Tyr Ser Tyr Asn Leu Phe Ser
403      35      40      45
406 Arg Glu Phe Arg Ala Ser Leu His Lys Gly Leu Asp Ser Ala Val Glu
407      50      55      60
410 Val Cys Val Val Tyr Gly Asn Tyr Ser Gln Gln Leu Gln Val Tyr Ser
411 65      70      75      80
414 Lys Thr Gly Phe Asn Cys Asp Gly Lys Leu Gly Asn Glu Ser Val Thr
415      85      90      95
418 Phe Tyr Leu Gln Asn Leu Tyr Val Asn Gln Thr Asp Ile Tyr Phe Cys
419      100     105     110
422 Lys Ile Glu Val Met Tyr Pro Pro Tyr Leu Asp Asn Glu Lys Ser
423      115     120     125
426 Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser Pro
427      130     135     140
430 Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val Gly
431 145      150     155     160
434 Gly Val Leu Ala Cys Tyr Ser Leu Leu Tyr Thr Val Ala Phe Ile Ile
435      165     170     175
438 Phe Trp Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met
439      180     185     190
442 Asn Met Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro
443      195     200     205

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/609,915

DATE: 05/13/2002
TIME: 13:15:06

Input Set : A:\ON0085I.ST25.txt
Output Set: N:\CRF3\05102002\I609915.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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